


WAH Caribou Overview

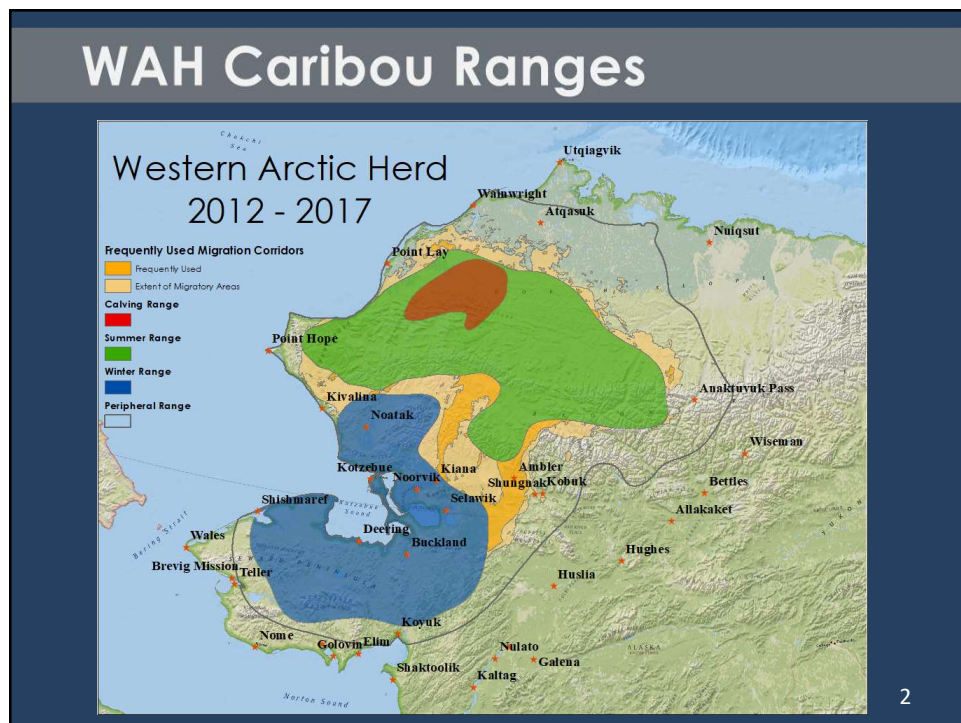
Board of Game – January 2020
Alex Hansen – Wildlife Biologist

- **Western Arctic Caribou Herd**
 - Abundance
 - Additional Biological Data
 - Management
 - Harvest
 - User Conflicts
 - Capture
 - Calf Research
 - Summary

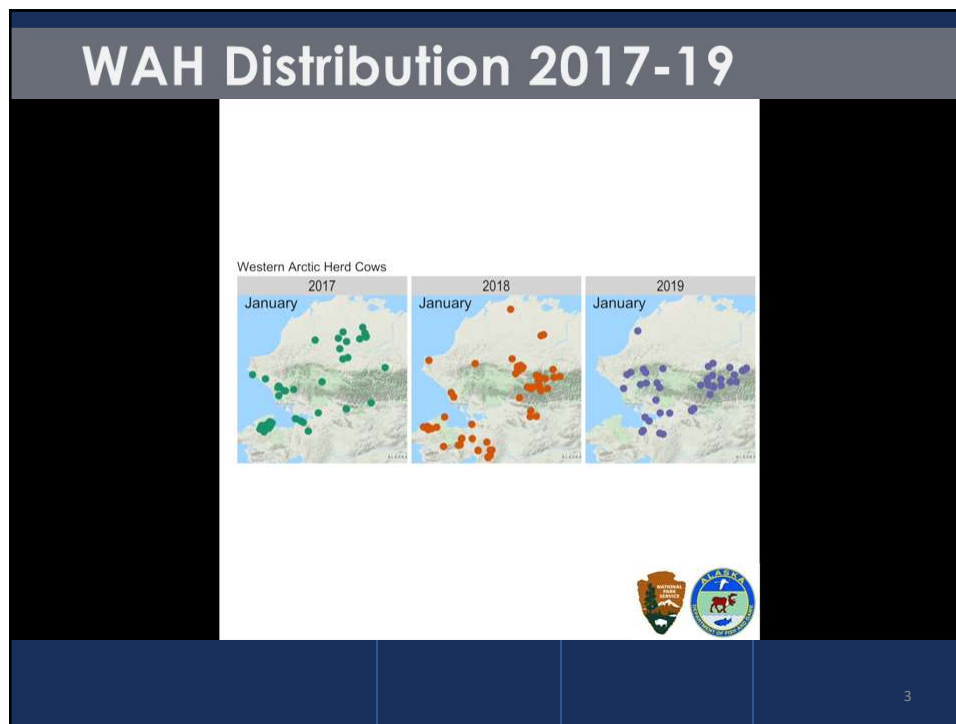


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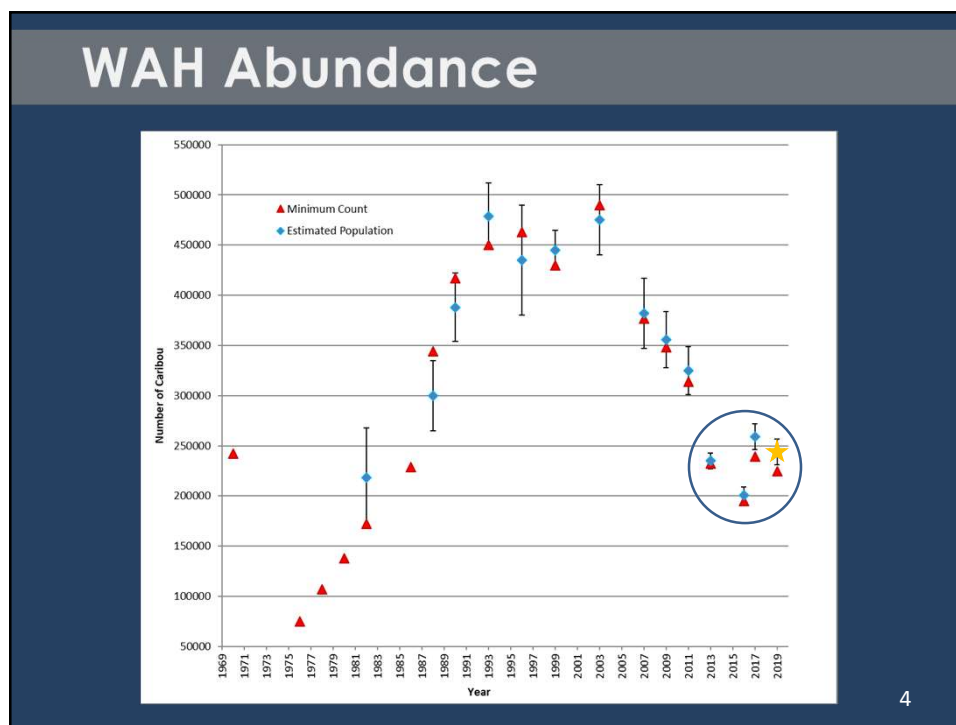
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WAH Abundance

2019 Photocensus Results


- Rivest Estimate: **244,000**
- +/- 25,000 (95% CI)
 - Minimum Count: 224,753
- 2018 no census
- 2017 estimate: 259,000
- 2016 estimate: 201,000



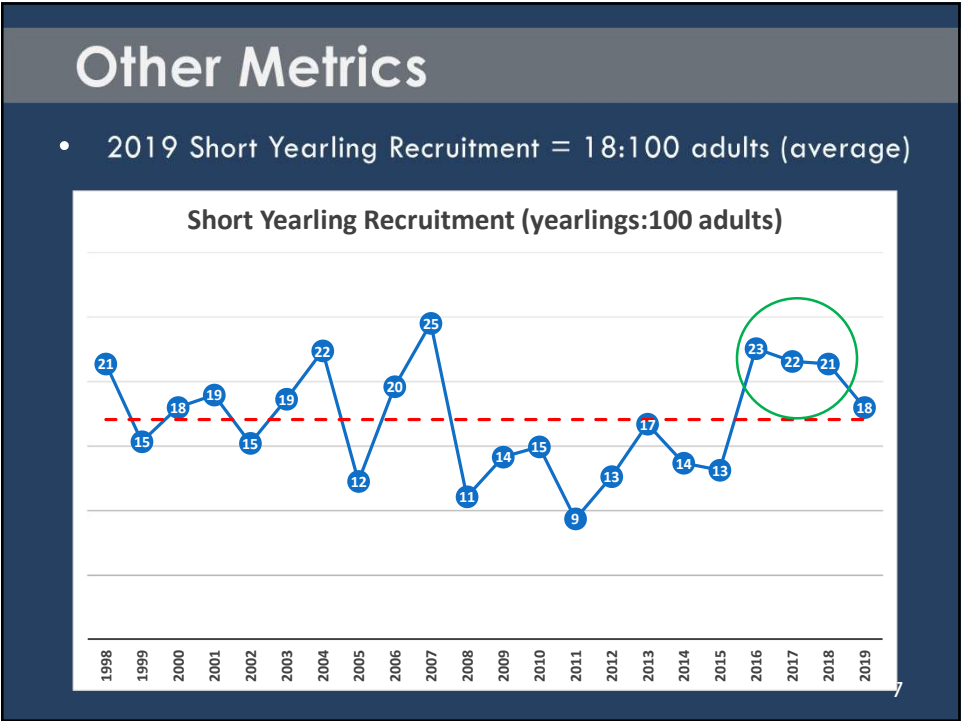
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Other Metrics

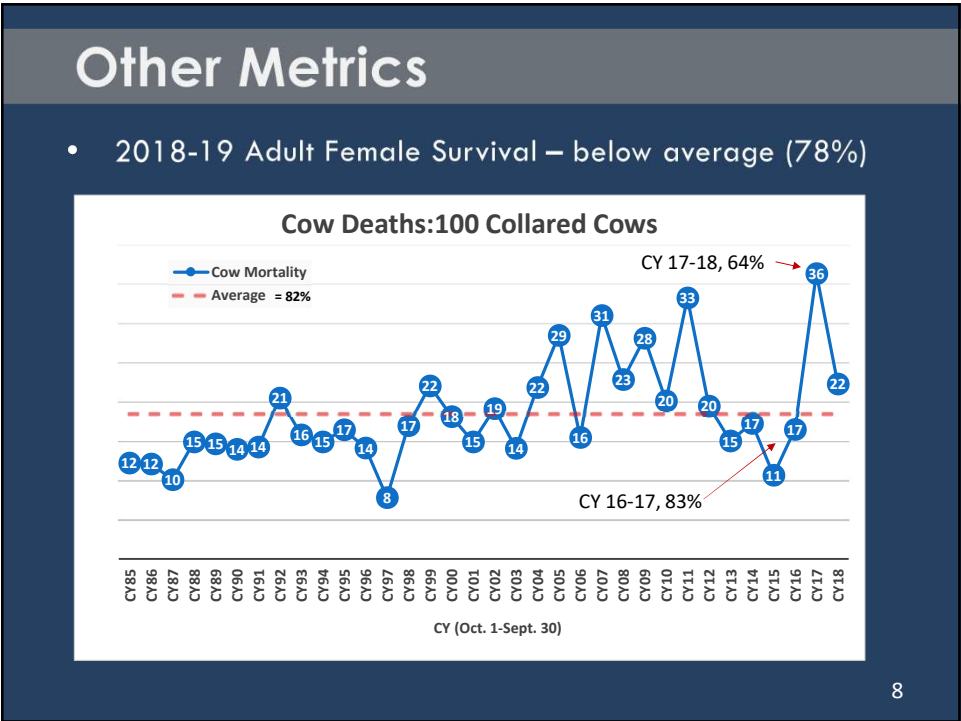
- 2019 Parturition – high 81:100
- 2018 – 86:100
- 2017 – 83:100



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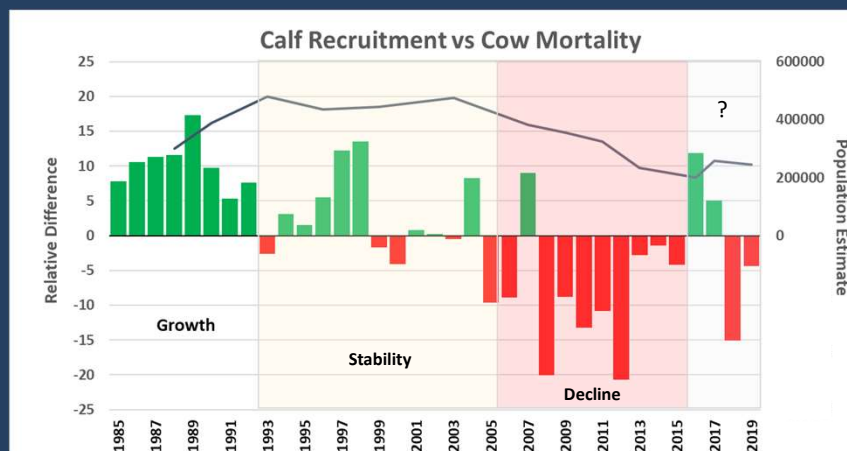


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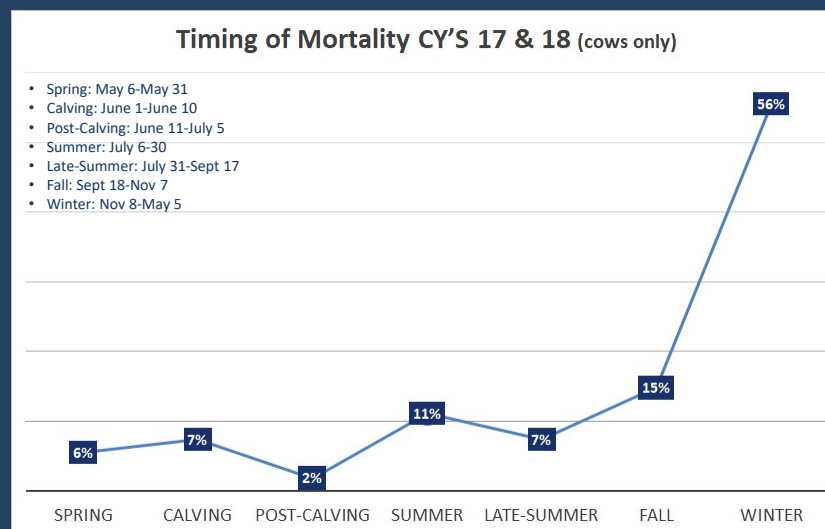
Other Metrics



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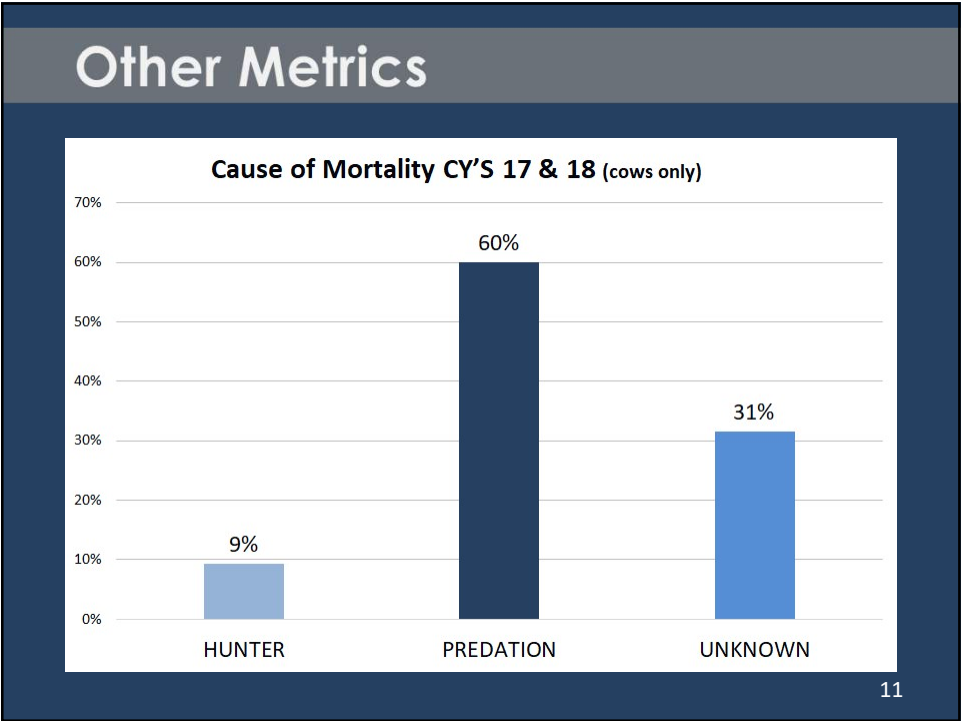
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Other Metrics



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Other Metrics

- **Other Biological Data**
 - Oct 2019 Average calf weights
 - high (90#), n=11
 - Oct 2019 adult body condition
 - high (78% fat/0 skinny), n=49
 - Oct 2017 Herd Composition
 - 54 bulls:100 cows - high
 - 57 calves:100 cows - high

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WAH Management

C&T Finding: Positive
ANS: 8,000-12,000, WAH and TCH

Annual Harvest: $\sim 12,000$ (+/- 1,750)*

- Includes a harvest of $\sim 3,600$ cows

Harvestable Surplus:

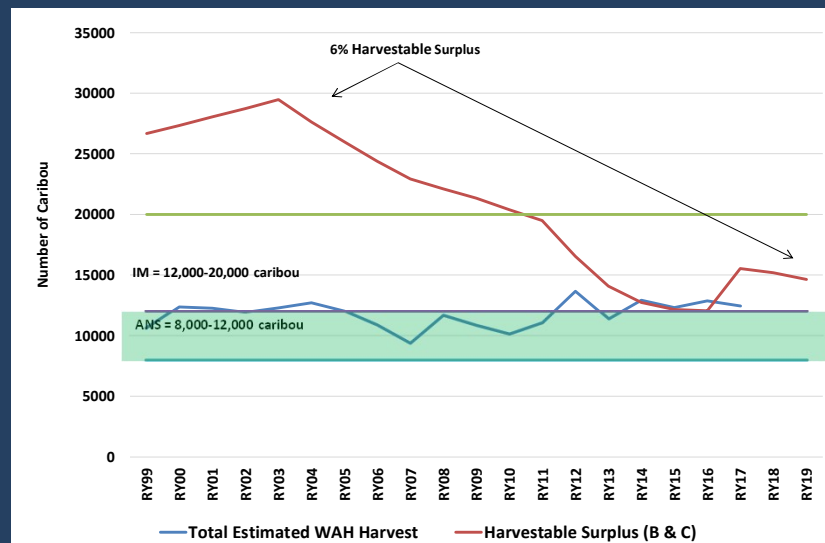
- Approximately 14,000 (Bull and Cow combined)
- At 6% harvest rate

Intensive Management Objectives:
 Population: 200,000
 Harvest: 12,000-20,000

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WAH Harvestable Surplus



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Management Level (WAHWG)

Management Level	Population Trend		
	Declining	Stable	Increasing
	Adult Cow Survival <80% Calf Recruitment <15:100	Adult Cow Survival 80%-88% Calf Recruitment 15-22:100	Adult Cow Survival >88% Calf Recruitment >22:100
Liberal	Pop: 265,000+ Harvest: 14,000+	Pop: 230,000+ Harvest: 14,000+	Pop: 200,000+ Harvest: 14,000+
Conservative	Pop: 200,000-265,000 Harvest: 10,000-14,000	Pop: 170,000-230,000 Harvest: 10,000-14,000	Pop: 150,000-200,000 Harvest: 10,000-14,000
Preservative	Pop: 130,000-200,000 Harvest: 6,000-10,000	Pop: 115,000-170,000 Harvest: 6,000-10,000	Pop: 100,000-150,000 Harvest: 6,000-10,000
Critical	Pop: <130,000 Harvest: <6,000	Pop: <115,000 Harvest: <6,000	Pop: <100,000 Harvest: <6,000

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Management Level (WAHWG)

WAHWG Management Plan; Appendix 2

Appendix 2: Management Recommendations

Conservative Management (orange)

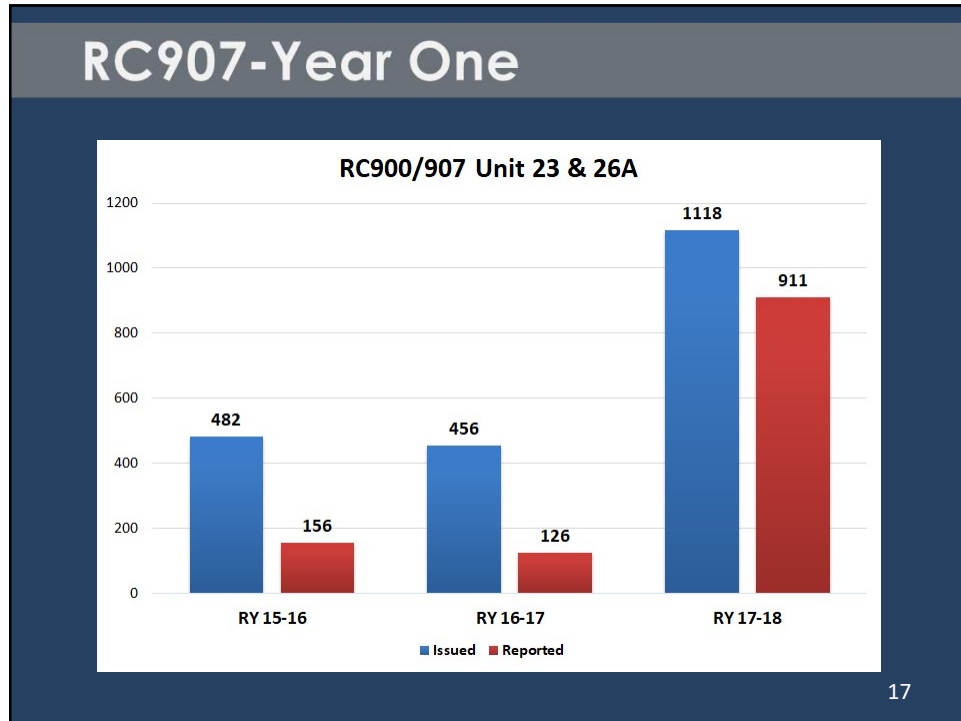
- Encourage voluntary reduction in calf harvest...✓
- No nonresident cow harvest ✓
- Restrict nonresident bull harvest ✓
- Encourage voluntary reduction in resident cow harvest ✓
- Limit subsistence harvest of bulls only if < 30 bulls:100 cows

Preservative Management (yellow)

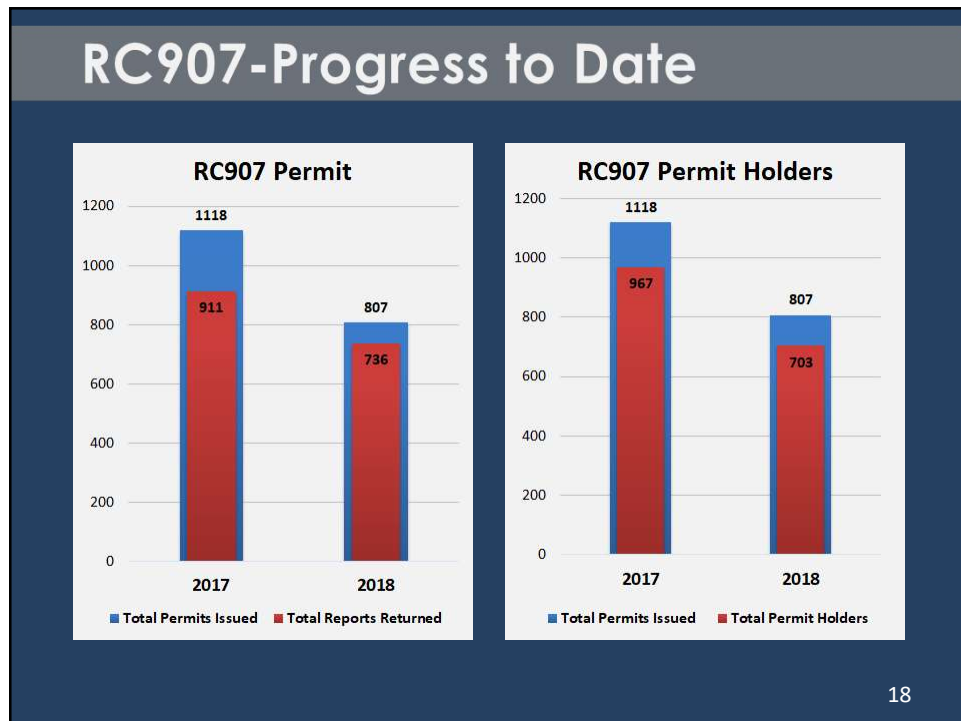
- No harvest of calves ✓
- Limit harvest of cows by residents through permit hunts and/or village quotas
- Limit subsistence harvest of bulls only if < 30 bulls:100 cows
- Harvest restricted to residents only according to State and federal law – closure of some federal public lands may be necessary ✓

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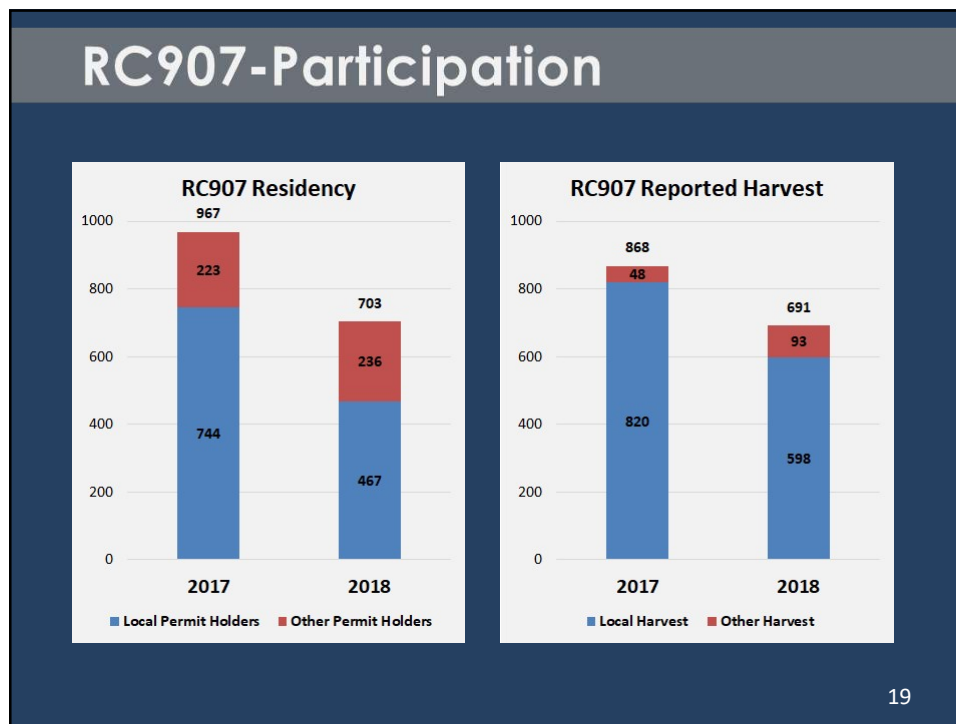
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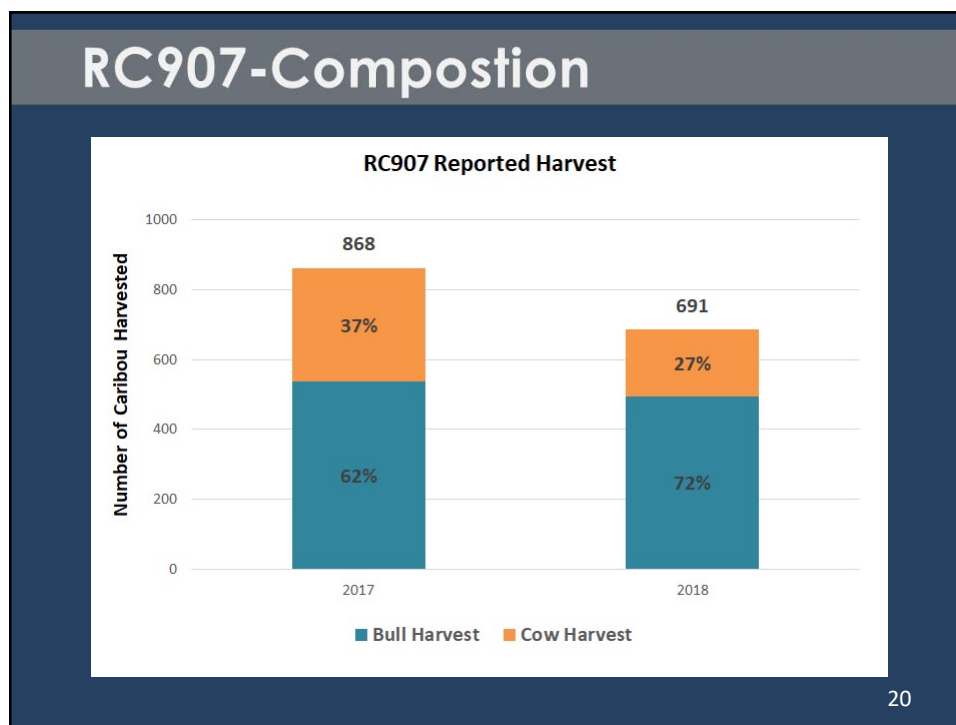
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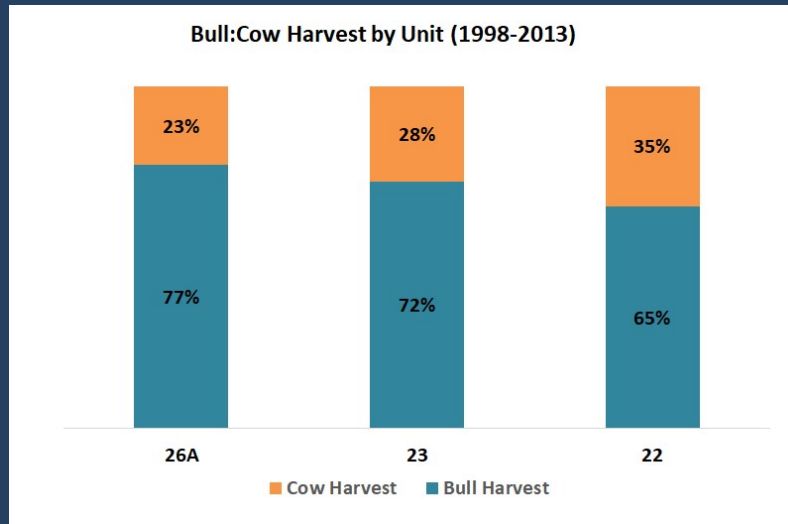


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Harvest Composition



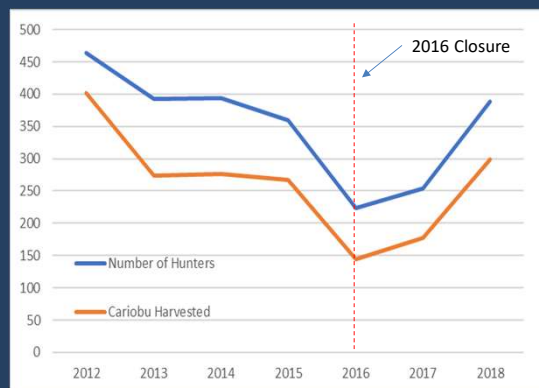
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User Conflict Issues

Federal Closures in Unit 23

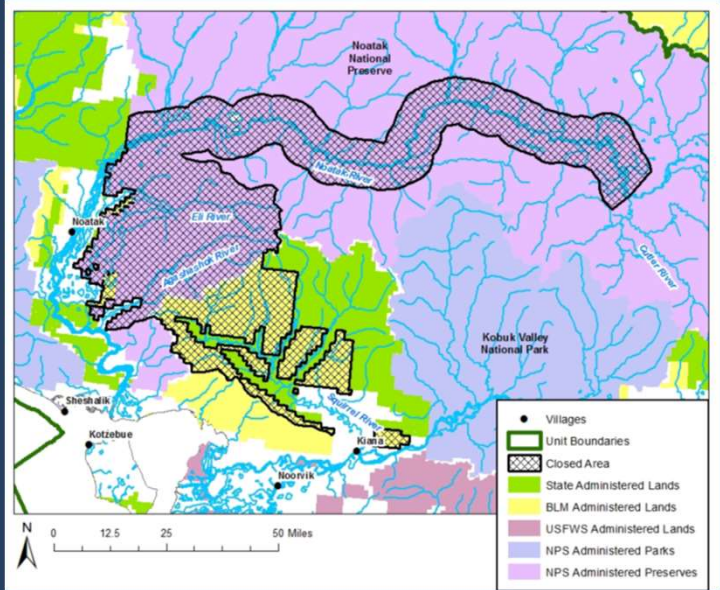
- Data suggest that the total number of visiting hunters was initially reduced by ~40%.
- Hunters displaced to state lands; or state lands within federal tracts (i.e. gravel bars).
- The number of visiting hunters since the 2016 closure has returned to near pre-closure levels.



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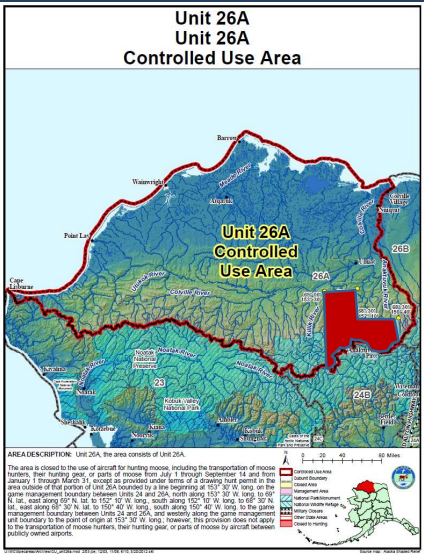
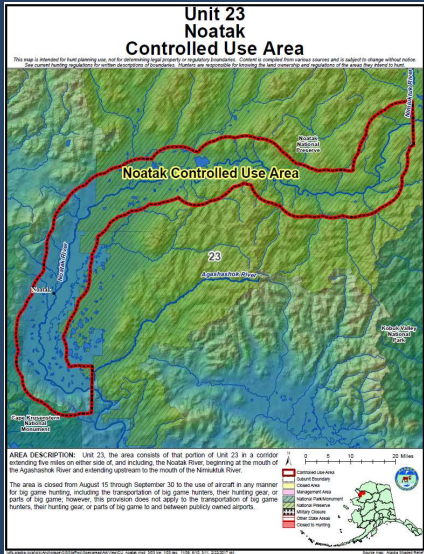
Federal Land Closure



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Controlled Use Areas



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Collaring

- Onion Portage (primary)
- Net-gun (as needed)



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WAH Calf Research

- WAH neonate survival study (2017-2019) ongoing
- Population decline, low recruitment
 - 1) Establish calf survival baseline
 - 2) Evaluate cause specific mortality



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WAH Calf Research

- Western Arctic Herd (2017-2019)
 - Calving ground survival - 86%
 - Annual survival - 44% (2017-18 only)
- Porcupine Herd (1983-2001)
 - Calving ground survival – 75%
 - Annual Survival – 48%
- Mulchatna Herd (2012-2018)
 - Calving ground survival ~ 60%
- Teshekpuk Herd (2012-2014)
 - Calving ground survival - 85%
 - Annual survival - 28%
- Fortymile Herd (1994-2002)
 - Calving ground survival – 65%
 - Annual survival – 43%



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WAH Calf Research

WAH Cause of Mortality – Calving Grounds

- 2017 (23%) n=78
 - Brown Bear (13)
 - Eagles (5)
- 2018 (13%) n=76
 - Brown Bear (1)
 - Unknown Predator (1)
 - Abandonment (4)
 - Unknown (4)
- 2019 (5%) n=74
 - Abandonment (1)
 - Dehydration (1)
 - Unknown (2)



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WAH Caribou Overview

Cautious Optimism for the Future of the WAH

Positive Signs:

- The current decline appears to have stabilized
- Parturition, calf recruitment and survival – good
- 2019 fall body condition – good

Concerns:

- Only slightly above critical values
 - WAHWG preservative management threshold
 - Upper level of the Amount Necessary for Subsistence
 - State Intensive Management population and harvest objectives
- High adult female mortality
- Concerns over harvestable surplus of cows being exceeded

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Board of Game – January 2020
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WAH Caribou Overview

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